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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,229	03/08/2001	Michaelj D. Albright	P5786	6676

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EXAMINER

CHANG, ERIC

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 02/17/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/802,229

Applicant(s)

ALBRIGHT ET AL.

Examiner

Eric Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2001.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.6.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-36 are pending.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,314,460 to Knight et al., in view of U.S. Patent 5,581,709 to Ito et al.

6. As to claim 1, Knight discloses a method for determining system information, comprising:

[a] determining component information on host adaptor and I/O device components in a network system [col. 2, lines 66-67, and col. 3, lines 1-12].

[b] adding the determined component information to a configuration file [col. 13, lines 40-60]; and for each host adaptor,

[c] determining information on the link between the host adaptor and the I/O device [FIG. 17, and col. 30, lines 56-63];

[d] determining information on the I/O device to which the host adaptor communicates [col. 31, lines 36-39]; and

[e] adding information on the link between the host adaptor and the I/O device to the configuration file [col. 13, lines 40-60].

Knight teaches determining information relating to the links between the host adaptor and all devices connected to it, such as switches and I/O devices. Knight teaches all of the limitations of the claim, but does not teach that the component information on the link between the host adaptor and the I/O device comprises information on a second link between the switch and the I/O device.

Ito teaches that a switch may be disposed between a host adaptor and an I/O device [FIG. 11], and that configuration information about a first link between link between the switch and the I/O device may be determined and stored [col. 9, lines 9-18].

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At the time that the invention was made, it would have been obvious to a person of ordinary skill in the art to employ the switching technology as taught by Ito. One of ordinary skill in the art would have been motivated in order to use switches to enable communications between the host adaptors and the I/O devices in the network.

It would have been obvious to one of ordinary skill in the art to combine the teachings of the cited references because they are both directed to the problem of configuring a storage network. Moreover, the switching means taught by Ito would improve the flexibility of Knight because it would allow the discovery process taught by Knight to determine not only the connection information between the host adaptor and its I/O devices, but also to specifically discover and store connection information relating to the switches between said host adaptor and I/O devices, as provided by the teachings of Ito.

7. As to claims 2, 14 and 26, Ito discloses the second link is determined by using the determined information on the first link and the I/O device to which the host adaptor communicates [col. 10, lines 12-23].

8. As to claims 3-14, 15-16 and 27-28, Knight discloses an application program may request and receive configuration information about at least one component in the system [col. 3, lines 13-43], such as the address of each component in the system [col. 19, lines 1-10].

9. As to claims 5, 8-10, 17, 2-22, 29 and 32-34, Ito discloses the component information includes an initiator port address for each host adaptor, and determining the first link comprises

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determining one host adaptor having an address that matches the address of one initiator port wherein the first link includes the connection to which the determined host adaptor and initiator port, and determining one I/O device having the same address as the host adaptor, and connecting the host adaptor to the I/O device via the initiator port and destination port having the same address [col. 7, lines 27-60]. Ito teaches mapping the host adaptor to its respective I/O device by corresponding the host adaptor address and the I/O device address by way of their switch port numbers, thereby creating a first and second link between the host adaptor, the switch, and the I/O device. It would have further been obvious to one of ordinary skill in the art that such initiator and destination port addresses may comprise loop addresses, as per the implementation details of the switch means, substantially as claimed.

10. As to claims 6-7, 18-19 and 30-31, Ito discloses the switch includes multiple destination ports and initiator ports wherein the initiator ports connect to host adaptors and the destination ports connect to storage devices [FIG. 11]. Ito further discloses the destination and initiator port addresses are stored in the component information [FIG. 15, and col. 9, lines 39-65].

11. As to claims 11, 23 and 35, Knight discloses a storage network [col. 2, lines 20-33]. It would be obvious to one of ordinary skill in the art to utilize an appropriate protocol as is well known in the art, such as Fibre Channel, to implement the storage network, substantially as claimed.

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12. As to claims 12, 24 and 36, Knight discloses the I/O device comprises a storage device [col. 2, lines 20-33].

13. As to claim 13, Knight and Ito disclose a method for determining system information between a host adaptor, a switch, and an I/O device, and adding said information to a configuration file. Because Knight and Ito teach the method, Knight and Ito teach a system implementing said method for determining said system information, substantially as claimed.

14. As to claim 25, Knight and Ito disclose a method for determining system information between a host adaptor, a switch, and an I/O device, and adding said information to a configuration file. Because Knight and Ito teach the method, Knight and Ito teach an article of manufacture containing code for implementing said method for determining said system information, substantially as claimed.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 4, 2004

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THOMAS LEE
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